ENVIRONMENTAL PRODUCT DECLARATION

Tecsound® synthetic soundproofing sheets

10 kg/m²

DAPcons®.100.161

DECLARACIÓN AMBIENTAL DE PRODUCTO
ENVIRONMENTAL PRODUCT DECLARATION

According to the standards:
ISO 14025 y EN 15804 + A2:2020

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ENVIRONMENTAL PRODUCT DECLARATION

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According to the standards:

ISO 14025 y EN UNE 15804 + A2:2020

GENERAL INFORMATION

Product

TECSOUND SYNTHETIC SOUNDPROOFING SHEETS (10 kg/m2)

Company

Product description

Synthetic soundproofing sheet with high density polymeric base, without asphalt, visco-elastic and highly adaptable, for application as an acoustic insulating element in multiple construction elements.

The brands that make up this product are:
- TECSOUND
- TECSOUND SY
- TECSOUND ALU
- TECSOUND S ALU
- TECSOUND 1000X2000 sheets

Reference RCP

RCP 100 (version 3 - 27/05/2021) Construction products in general

Production plant

The manufacturing plant for synthetic soundproofing sheets is as follows: Soprema Iberia SLU. C/ Ferro 7, Pol. Ind. Can Pelegrí 08755 Castellbisbal, Barcelona. Spain.

Validity

From: 27/10/2023 Until: 27/10/2028

The validity of DAPcons®.100.161 is subject to the conditions of the regulation DAPcons®. The current edition of this DAPcons® is the one that appears in the registry maintained by Cateb; for informational purposes, it is included on the Program website www.csostenible.net

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EXECUTIVE SUMMARY

TECSOUND SYNTHETIC SOUNDPROOFING SHEETS (10 kg/m2)

	DAPconstruction® Programme Operator Environmental Product Declarations in the Construction sector www.csostenible.net
	Programme Manager Colegio de la Arquitectura Técnica de Barcelona (Cateb) Bon Pastor, 5 · 08021 Barcelona www.apabcn.cat
	Owner of the declaration SOPREMA IBERIA SLU CALLE FERRO, 7 - POLIGONO IND CAN PELEGRI 08755 - BARCELONA (España) www.soprema.es
	Author of the Life cycle assessment: ITeC - Institut de Tecnologia de la Construcció de Catalunya C. Wellington, 19, 08018 - BARCELONA, España

Declared product

TECSOUND SYNTHETIC SOUNDPROOFING SHEETS (10 kg/m2)

Geographic representation

Production: Spain.

End of life: Global.

Variability between different products

This document states the results of TECSOUND synthetic soundproofing sheets with a grammage of 10 kg/m2. Declared values are for an average product with 9,83% of variability for "Global Warming Potential - Total (GWP-Total)" environmental indicator in A1-A3 modules.

Declaration number

DAPcons®.100.161

Issue date

31/07/2023

Validity

This verified declaration authorizes its holder to carry the logo of the operator of the ecolabelling program DAPconstruction®. The declaration is applicable exclusively to the mentioned product and for five years from the date of registration. The information contained in this statement was provided under the responsibility of: **SOPREMA IBERIA SLU**

Programme Administrator Signature

Celestí Ventura Cisternas. President of Cateb

Verifier Signature

HELIOS POMAR BLANCO. ReMa-INGENIERÍA, S.L.. Verifier accredited by the administrator of the DAPcons® Programme

ENVIRONMENTAL PRODUCT DECLARATION

1. DESCRIPTION OF THE PRODUCT AND ITS USE

Synthetic soundproofing sheet with high density polymeric base, without asphalt, visco-elastic and highly adaptable, for application as an acoustic insulating element in multiple construction elements: walls, ceilings, roofs, etc.

It is manufactured in different materials depending on the application for which it is intended, in compliance with CTE-DB-HR, EN ISO 140-1, EN ISO 140-3, EN ISO 140-6, EN ISO 140-8, EN ISO 10140 y EN ISO 717/1/2.

The brands that make up this product are:
- TECSOUND. It incorporates as a finish a layer of non-woven polypropylene fabric that gives a greater traction and tearing resistance.
- TECSOUND SY. Self-adhesive sound-absorbing synthetic sheet.
- TECSOUND ALU. The upper side has a reinforced aluminum film finish while the lower side is made of polyester wool that allows other materials such as foams and fibers to be bonded.
- TECSOUND S ALU. Equipped with an aluminum film on its upper side that acts as a protective and finishing layer and a self-adhesive layer on the lower side.
- TECSOUND 1000X2000 sheets. Incorporates a non-woven polyester fabric as a finish on the upper side and a removable film on the lower side.

Technical data sheets as well as safety data sheets for each of the products listed can be consulted in Soprema documentation section website: www.soprema.es/es/documentation/search-strict-product.

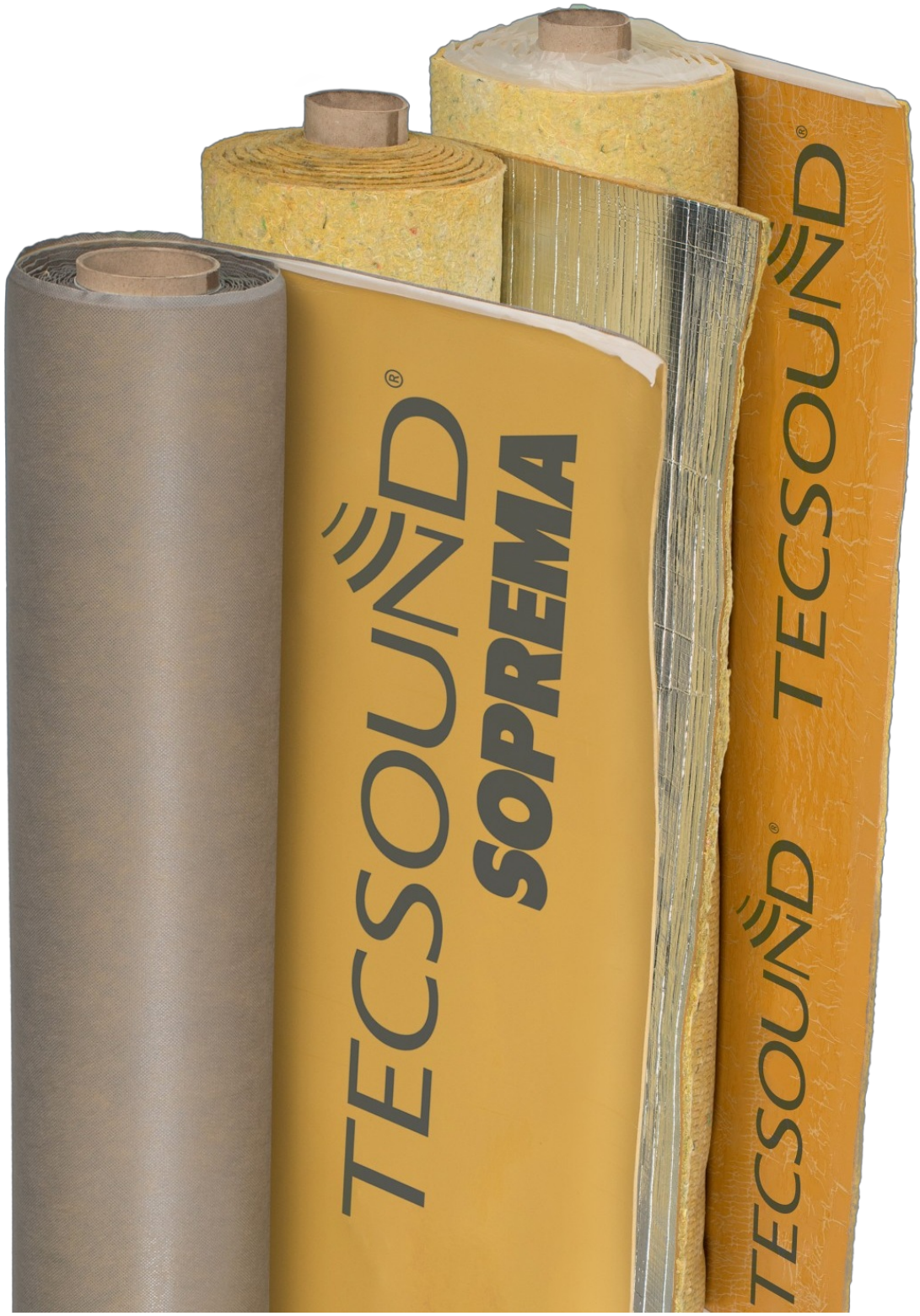
1.1 Content information

Product components

Raw materials used in manufacturing process for acoustic film declared ranges are plastic polymers, plasticisers, mineral fillers aluminium foil and stabilisers.

Packaging materials

Materials used for packaging are polyethylene (PE) for bags and film, expanded polystyrene (EPS) for cradles, cardboard for mandrels, spacers and corner pieces, and wood for pallets and sleepers.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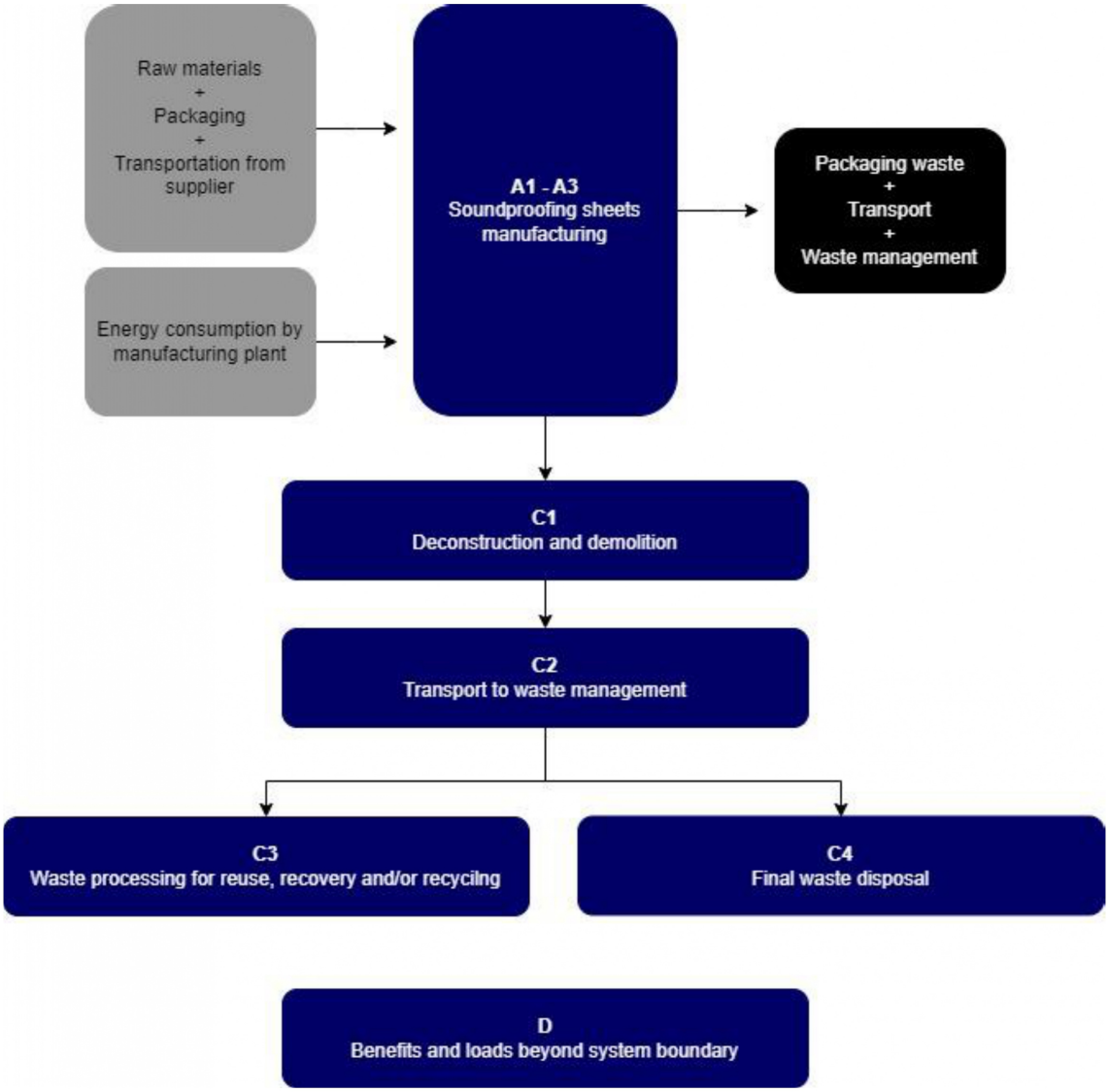
System limits



2. DESCRIPTION OF THE STAGES OF THE LIFE CYCLE

2.1. Manufacturing (A1, A2 y A3)

Raw Materials and transport (A1 y A2)

Raw materials are received at the manufacturing plant from external manufacturers. Impacts produced by raw materials have been considered, considering the manufacturing yield, and impacts produced by the packaging of raw materials.

For the transport of raw materials, a generic EURO VI truck of 16-32 Tn has been considered, and a generic transoceanic container ship if the origin of the raw material requires this type of transport.

Manufacturing (A3)

The first manufacturing phase is the homogenization of raw materials. The purpose of this phase is to prepare the composition of materials to be used in the production line. Next, calendering process begins in order to obtain the performance according to the product. After that, the resulting rolls from previous process are cut. Finally, quality control is carried out and the product is packed.

2.2. Construction process stage (A4 y A5)

Transport to the building site (A4)

Undeclared

Product installation process and construction (A5)

Undeclared

2.3. Product use (B1-B7)

Use (B1)

Undeclared

Maintenance (B2)

Undeclared

Repair (B3)

Undeclared

Replacement (B4)

Undeclared

Refurbishment (B5)

Undeclared

Operational energy use (B6)

Undeclared

Operational water use (B7)

Undeclared

2.4. End of life (C1-C4)

Deconstruction and demolition (C1)

The environmental impact attributed to the product deconstruction at the end of its lifetime is negligible, as they constitute a very small part in a building demolition.

Transport to waste processing (C2)

Product residues created in the previous phase are transported by 16-32 Tn EURO VI truck at a distance of 50 km to the waste management place.

Waste processing for reuse, recovery and/or recycling (C3)

The environmental impacts of waste separation management are accounted for in this information module. The scenario contemplates 35% for energy recovery and 65% for landfill.

Disposal (C4)

The environmental impacts of 65% of the product waste disposal management are accounted for in this information module.

2.5. Reuse/recovery/recycling potential (D)

The environmental charges and benefits generated by energy recovery due to incineration have been accounted for.

3. LIFE CYCLE ASSESSMENT

The life cycle analysis model on which this statement is based has been performed according to ISO 14040:2006, ISO 14044+A1:2018, ISO 14025:2010 and EN 15804:2012+A2:2020 and the RCP 100 Product Category Rules document for general construction products. Ecoinvent v3.6 (2019) database has been used to obtain the inventory data for generic processes.

The declaration is Cradle to Gate type with modules C1 - C4 and module D. Life Cycle Analysis covers from geotextile manufacturing until it leaves the plant, considering the end-of-life stage and benefits and loads beyond system boundary.

Specific data for 2021 production of quantity and raw materials used, origin and transport required, type of packaging and energy consumption during manufacture were taken from Soprema Iberia S.L.U. plant at C/ Ferro 7, Pol. Ind. Can Pelegrí 08755 Castellbisbal, Barcelona. España.

3.1. Declared Unit

The declared unit is: 1m2 TECSOUND synthetic soundproofing sheet, grammage 10 kg/m2.

Additional comments

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3.2. Scope and modules that are declared

Table 2. Declared modules

Product stage			Construction Process Stage		Use stage							End of life stage				Benefits and loads beyond the system boundaries
Raw materials supply	Transport	Manufacturing	Transport	Construction - Installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction	Transport	Waste processing	Disposal	Reuse, recovery, recycling potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	MND	MND	MND	MND	MND	MND	MND	MND	MND	X	X	X	X	X

X = Declared module **MND** = Undeclared module

3.3. LCA results of potential environmental impact referred to the declared unit (ACV)

Table 3. Parameters of environmental impact

Parameter	Unit	Life cycle stage														Module D
		Product stage	Construction Process Stage		Use stage							End of life stage				
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	
Climate change - total (GWP-total)	kg CO2 eq	1,55E+01	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,90E-02	1,05E-01	3,50E-02	7,98E+00
Climate change - fossil (GWP-fossil)	kg CO2 eq	1,51E+01	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,90E-02	1,04E-01	3,44E-02	7,98E+00
Climate change - biogenic (GWP-biogenic)	kg CO2 eq	3,75E-01	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,86E-05	2,71E-04	5,75E-04	3,90E-04
Climate change - land use and changes in land use (GWP-luluc)	kg CO2 eq	1,24E-02	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,53E-07	4,90E-05	1,24E-05	-4,50E-06
Ozone layer depletion (ODP)	kg CFC 11 eq	2,44E-06	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,62E-08	1,86E-08	6,18E-09	-2,54E-07
Acidification (AP)	mol H+ eq	4,68E-02	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,68E-04	9,72E-04	3,21E-04	1,13E-03
Eutrophication of fresh water (EP-freshwater)	kg P eq	2,54E-03	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,50E-07	1,35E-05	1,42E-05	4,89E-06
Eutrophication of sea water (EP-marine)	kg N eq.	8,40E-03	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,96E-04	4,02E-04	1,33E-04	8,22E-04
Terrestrial eutrophication (EP-terrestrial)	mol N eq.	7,63E-02	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,16E-03	4,38E-03	1,45E-03	6,41E-03
Photochemical ozone formation (POCP)	kg NMVOC eq	2,66E-02	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,56E-04	1,20E-03	4,01E-04	1,27E-03
Depletion of abiotic resources - minerals and metals (ADP-minerals&metals)	kg Sb eq	4,97E-06	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,11E-09	5,13E-08	1,60E-08	1,88E-06
Depletion of abiotic resources - fossil fuels (ADP-fossil)	MJ, net calorific value	2,41E+02	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	9,88E-01	1,42E+00	4,58E-01	-2,98E+01
Water consumption (WDP)	m3 worldwide eq. private	2,54E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	-2,18E-04	4,26E-03	1,13E-03	3,89E-01
The Indicador includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This Indicador is thus equal to the GWP Indicador originally defined in EN 15804:2012+A1:2013. Can be obtained from IPCC characterization factors.																
Global Warming Potential (GHG)	kg CO2 eq	1,51E+01	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,90E-02	1,04E-01	3,44E-02	7,98E+00

A1 Supply of raw materials. **A2** Transport to waste processing. **A3** Manufacturing. **A4** Transport to waste processing. **A5** Installation and construction processes. **B1** Use. **B2** Maintenance. **B3** Repair. **B4** Replacement. **B5** Refurbishment. **B6** Operational energy use. **B7** Operational water use. **C1** Deconstruction and demolition. **C2** Transport to waste processing. **C3** Waste management for reuse, recovery and recycling. **C4** Fine removal. **D** Environmental benefits and burdens beyond the system boundary. **MND** Undeclared module.

Table 4. Parameters for the use of resources, waste and output material flows

Parameter	Unit	Life cycle stage														Module D
		Product stage	Construction Process Stage		Use stage							End of life stage				
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	
Use of renewable primary energy excluding renewable primary energy resources used as feedstock	MJ, net calorific value	6,05E+01	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,38E-03	3,81E-02	1,05E-02	-3,56E-03
Use of renewable primary energy used as raw material	MJ, net calorific value	3,15E-01	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total use of renewable primary energy (primary energy and renewable primary energy resources used as feedstock)	MJ, net calorific value	6,08E+01	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,38E-03	3,81E-02	1,05E-02	-3,56E-03
Non-renewable primary energy use, excluding non-renewable primary energy resources used as feedstock	MJ, net calorific value	2,57E+02	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,05E+00	1,51E+00	4,86E-01	-3,31E+01
Use of non-renewable primary energy used as raw material	MJ, net calorific value	1,64E+01	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total use of non-renewable primary energy (primary energy and renewable primary energy resources used as feedstock)	MJ, net calorific value	2,74E+02	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,05E+00	1,51E+00	4,86E-01	-3,31E+01
Use of secondary materials	kg	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of renewable secondary fuels	MJ, net calorific value	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non-renewable secondary fuels	MJ, net calorific value	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Net use of freshwater resources	m3	9,44E-02	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,48E-06	2,05E-04	5,52E-05	1,20E-02
Hazardous waste removed	kg	1,30E-04	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,62E-06	2,92E-06	9,73E-07	-3,08E-05
Non-hazardous waste eliminated	kg	5,19E-01	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,28E-05	1,32E-03	6,50E+00	1,96E-01
Radioactive waste disposed of	kg	1,28E-03	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,16E-06	8,83E-06	2,90E-06	7,62E-07
Components for reuse	kg	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	4,90E-01	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for energy recovery (energy recovery)	kg	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	3,50E+00	0,00E+00	0,00E+00
Exported energy	MJ by energy vector	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	2,68E+01	0,00E+00	0,00E+00

A1 Supply of raw materials. **A2** Transport to waste processing. **A3** Manufacturing. **A4** Transport to waste processing. **A5** Installation and construction processes. **B1** Use. **B2** Maintenance. **B3** Repair. **B4** Replacement. **B5** Refurbishment. **B6** Operational energy use. **B7** Operational water use. **C1** Deconstruction and demolition. **C2** Transport to waste processing. **C3** Waste management for reuse, recovery and recycling. **C4** Fine removal. **D** Environmental benefits and burdens beyond the system boundary. **MND** Undeclared module.

Table 5. Kg of biogenic carbon

Contenido Carbono (biogénico) - embalaje	2,93E-02
Contenido Carbono (biogénico) - producto	0,00E+00

3.4. Recommendations of this DAP

The environmental product declarations of different type III eco-labeling systems may not be directly comparable, as the calculation rules may be different. This declaration represents the performance of synthetic soundproofing sheets manufactured by Soprema Iberia S.L.U.

3.5. Cut-off rules

More than 95% of all mass and energy inputs and outputs in the system have been included, leaving out, among others, diffuse emissions at the factory.

3.6. Additional environmental information

The product is defined as a non-hazardous substance according to legislation no. 1907/2006 (REACH) of June 1, 2007, although a SAFETY DATA SHEET (SDS) is not required, a use and handling sheet is available on the web: www.soprema.es.

ISO 14001: Certified plant and implemented Environmental Management System.

3.7. Other data

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4. ADDITIONAL TECHNICAL INFORMATION AND SCENARIOS

4.1. Transport to the building site (A4)

Undeclared

4.2. Installation processes (A5)

Undeclared

4.3. Reference life (B1)

Undeclared

4.4. Maintenance (B2), Repair (B3), Replacement (B4), or Refurbishment (B5)

Maintenance (B2)

Undeclared

Repair (B3)

Undeclared

Replacement (B4)

Undeclared

Refurbishment (B5)

Undeclared

4.6. Operational energy use (B6) and operational water use (B7)

Undeclared

4.7. End of life (C1-C4)

	Process				
	Collection processes (specified by types)	Recovery systems (specified by type)			Elimination
	kg collected with mixed construction waste	kg for reuse	kg for recycling	kg for energy recovery	kg for final disposal
	1	0	0	0.35	0.65
Assumptions for scenario development	The scenario contemplates 35% for energy recovery and 65% for landfill.				

5. ADDITIONAL INFORMATION

Manufactured according to ISO:9001 Quality System, certificate no. FR18/81842815.
Environmental Management System according to ISO:14001, certificate no. FR18/81842816.

6. RCP AND VERIFICATION

This statement is based on Document

RCP 100 (version 3 - 27/05/2021) Construction products in general

Independent verification of the declaration and data, in accordance with ISO 14025 and IN RCP 100 (version 3 - 27/05/2021)

☑ External

Third party Verifier

HELIOS POMAR BLANCO
Accredited by the administrator of the DAPcons® Programme

Verification date:

27/10/2023

References

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- ISO 14025:2010, Environmental labels and declarations - Environmental declarations type III - Principles and procedures (identical to ISO 14025:2006).
- ISO 21930:2017, Sustainability of construction works - Environmental declaration for construction products (referenced by EN 15804).
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- ISO 14044+A1:2018, Environmental management - Life cycle assessment - Requirements and guidelines.
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- Bressi, Sara & Santos, João & Giunta, Marinella & Lo Presti, Davide. (2018). A comparative life-cycle assessment of asphalt mixtures for railway sub-ballast containing alternative materials.
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- Life Cycle Assessment: TECSOUND synthetic soundproofing sheets. LCA report by The Catalonia Institute of Construction Technology (ITeC), 2023.

Programme Manager

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